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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,812	03/15/2001	Peter H. Markusch	Mo-5942/MD-00-46-PU	6332

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EXAMINER

BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

6

DATE MAILED: 02/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,812

Applicant(s)

MARKUSCH ET AL.

Examiner

Melanie D. Bissett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The rejection based on 35 USC 112 has been withdrawn based on the applicant's amendment A filed 12/16/02. However, the rejections based on 35 USC 102 and 35 USC 103 have been maintained.

Election/Restrictions

2. It is acknowledged that group I has been elected without traverse, and non-elected claims 12-27 have been cancelled.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-2, 5-6, and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gasper et al. as evidenced by Sinclair and Kausch et al.
5. From a prior Office action:

16. Gasper discloses a flexible sheet material impregnated with a liquid polyurethane resin (abstract). The sheet is wrapped around a padding or itself, forming multiple layers of support material and padding material (col. 5 lines 8-36). The support material can be formed from materials comprising fibers such as polyester, polyolefin, fiberglass, etc. (col. 4 lines 26-40) and is flexible. Since the material is formed from similar materials as those of the applicant's invention, and since the materials are describes as supportive, it is the examiner's position that the materials have an amount of both rigid and flexible character. Thus, multi-layered impregnated materials would form a composite having a rigid geotextile bonded to a soft, pliable geotextile. The polyurethane resin used to impregnate the material includes an isocyanate and active hydrogen compound, where diphenylmethane diisocyanates are preferred isocyanates (col. 2 lines 46-58). A preferred isocyanate, Isonate 143L, is a diphenylmethane diisocyanate having an NCO content of 29.2% (about 30%) and a viscosity of 33 cps (33 mPa*s) (Sinclair, col. 3 lines 19-26). Preferred polyols include polypropylene oxide polyols such as PPG 425 (col. 3 lines 16-27), a polypropylene

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ether diol having a molecular weight of 400 (Kausch et al., col. 7 lines 64-65). Catalysts are also included in the polyurethane compositions (col. 4 lines 9-17). Note that at least example 1 does not mention the use of fillers or low-molecular-weight diols or triols.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne in view of Adam et al., and vice versa.

8. From a prior Office action:

19. Payne discloses ditch lining materials formed by impregnating a solidifiable liquid mixture into a porous blanket (abstract). Support blanket materials include woven and non-woven materials made from fibers, yarns, and ribbons (col. 3 lines 38-48). The reference also teaches liners having a second blanket bonded by the liquid mixture onto the support blanket (col. 6 lines 4-19). Since the blanket materials are described as support materials and are shown as flexible materials (Figures 1-2), it is the examiner's position that the blanket materials of the invention would inherently possess both rigid and flexible character. Thus, a composite having two blanket sheets would anticipate a rigid geotextile bonded to a pliable textile. Payne suggests polyurethane materials as liquid mixtures (col. 5 lines 55-58). However, Payne does not disclose the applicant's claimed specific polyurethane composition.

20. Adam discloses ditch liners made by impregnating a solidifiable liquid mixture into a porous blanket, where the solidifiable material is a the reaction mixture of a polyisocyanate, a catalyst, a propylene oxide adduct of an alkanolamine, a propylene oxide adduct of a low molecular weight polyol, and a propylene oxide adduct of a low molecular weight diol (abstract). The example shows the combination of a polymethylene poly(phenyl isocyanate) having an NCO content of 31.6% by weight and a viscosity of 200 mPa*s, 10 parts of a propylene oxide/monoethanolamine adduct having a molecular weight of 480, a propylene oxide adduct of glycerin having a molecular weight of 670, and a propylene oxide adduct of propylene glycol having a molecular weight of 2000. Organic tin catalysts are used in the invention (col. 4 lines 36-43). The polyurethane mixtures of the invention cure in a reasonable amount of time without externally applied heat (col. 2 lines 22-25). Therefore, it is the examiner's position that it would have been prima facie obvious to use Adam's polyurethane compositions in Payne's invention to provide liquid adhesive materials having improved cure processibility.

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21. Likewise, Adam applies as above for a ditch liner comprising a porous blanket and solidifiable polyurethane liquid mixture. The reference refers to Payne (USPN 4,872,784) for the liner-forming process and apparatus (example; col. 2 lines 26-30). However, Adam does not suggest the use of an additional blanket layer. Payne suggests the use of such a second blanket layer, also demonstrating the structure (col. 6 lines 7-13; Figures 2, 5) as a preferred embodiment of the invention. Thus, it is the examiner's position that it would have been prima facie obvious to include a second blanket layer in Adam's invention to form a ditch liner having equally improved cure processibility.

22. Payne and Adam apply as above, failing to mention the thickness of the blanket layers. However, since the object of both inventions is to form ditch liners with improved cost and durability, it is the examiner's position that it would have been prima facie obvious to choose the blanket layers of any thickness necessary to optimize durability and cost.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Payne in view of Adam et al., and vice versa as applied to claims 1-8 above, and further in view of Lou et al.

10. From a prior Office action:

24. Payne and Adam et al. apply as above, failing to mention the second blanket layer as having a burnished side. Lou teaches that fabrics made from synthetic organic fibers can be burnished (col. 1 line 56-col. 2 line 1), where the burnishing step serves to provide an abrasion-resistant, uniform-appearing surface (col. 4 lines 11-14). Since durability is mentioned in both Payne and Adam as a quality to be improved, it is the examiner's position that it would have been prima facie obvious to use a porous blanket having at least one burnished side to improve abrasion-resistance and thus improve durability of the composites.

Response to Arguments

11. Regarding the applicant's argument that Gasper fails to disclose a geotextile as part of his orthopedic support, it is noted that Gasper points to the use of woven or knit fabrics comprised of natural or synthetic fibers, where Gasper mentions materials similar to those employed in the current specification. The polyurethane impregnates the fabrics, suggesting porosity. Thus, by the applicant's definition of woven or non-

woven porous blanket or mat produced from natural or synthetic fibers, Gasper anticipates the use of geotextile fabrics. Although the applicant intends to use the materials for different applications than Gasper, the applicants provide no language in the claims to structurally distinguish the materials of the present specification from those employed by Gasper. Intended use does not provide patentability in this case, since the materials of Gasper are capable of use on earthen surfaces.

12. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been prima facie obvious to use Adam's polyurethane compositions in Payne's invention to provide liquid adhesive materials having improved cure processibility; and it would have been prima facie obvious to include a second blanket layer in Adam's invention to form a ditch liner having equally improved cure processibility. Adam indicates that the polyurethanes of the invention are improved in that they cure in a reasonable amount of time without externally applied heat. Thus, one skilled in the art would recognize that the polyurethanes of Adams would be used in Payne's invention. Also, Payne indicates the preferred use of two blanket layers, where the use of two blanket layers would provide at least equal durability compared to an apparatus using

one blanket layer. It has been held that the use of multiple layers of the same material would be obvious to amplify the benefits of the single layer. Since Adam is drawn to a blanket impregnated with a material, where the material has improved cure processibility, it has been the examiner's position that it would have been prima facie obvious to use an additional blanket layer, with the expectancy of forming a ditch liner having at least equally improved cure processibility.

13. Regarding the applicant's arguments that Payne fails to disclose two layers having different characteristics as instantly claimed, it is noted that the claims only specify a geotextile layer bonded to a pliable geotextile layer. The geotextiles of Payne's invention have been shown as support materials and flexible materials. Thus, the use of two blanket layers would provide two pliable, supportive geotextile layers, anticipating the applicant's claims.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (703) 308-6539. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

mdb
February 20, 2003


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700